GEOGRAPHIC SCHOOL BULLETINS

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Paul Almasy

TALKING SEEDS TELL THE MEDICINE MAN WHAT MEDICINE TO GIVE

Pagan magic still plays its part in the lives of natives of Madagascar, the big French island off the southeast coast of Africa. When this girl, dressed in beads and printed *lamba*, sat down in the medicine man's outdoor "office," he called on his magic seeds to diagnose her illness and prescribe the cure. Sprinkling the seeds on his straw mat, he lined them up in mystic arrangements of sixes and sevens, expecting their final pattern to give him a hint of the treatment the patient needs. Such traces of native superstition still linger, in spite of French attempts to wipe them out along with native government and the native queen, Ranavalona III, exiled in 1896 (Bulletin No. 2).

HOW TEACHERS MAY OBTAIN THE BULLETINS

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Sixteen Miniature "Nations" Crammed into Russia's Caucasus

THE Nazis' invasion of the Caucasus is bringing into the headlines some strange dwarf nations and pint-size republics whose story-book names are rarely heard. Abkhazia, Daghestan, Nakichevan, Checheno-Ingushia, and Kabardino-Balkaria are samples.

The mountainous Caucasus Isthmus, between the Black Sea and the Caspian, covers an area slightly smaller than that of Montana. But its 137,180 square miles contain 16 separate governmental units and part of another, all members of the Soviet Union somewhat as the States are members of the United States. Their peoples are remnants of tribes once more numerous and important, now left stranded in high mountain fastnesses or river valleys by some change in the tides of forgotten history. Some republics are Rhode Island's size; others are larger than Denmark or Ireland. Most are too small to appear on the average map. Yet, differing from neighbors in language or religion, each group is self-governing.

Kalmuck Republic a Barren Land of Buddhist Shepherds

North of the Caucasus Mountains' snowy saw-toothed range lies the southwesternmost section of Russia proper—officially the Russian Socialist Federated Soviet Republic. This is the largest of the eleven pre-war Union Republics which make up the U.S.S.R. On the south side of the mountain wall are three smaller Union Republics, which share the green mountains and hot lowlands stretching to Turkey's frontier—Georgia, Armenia, and Azerbaijan. Each of these four Union Republics except Armenia is spotted with "islands" of minority peoples with separate governments. There are eight of these land-islands in Russia on the north side of the Caucasus, three of them in Georgia and two in Azerbaijan on the south.

Those in Russia proper consist of five small republics and three autonomous provinces. The Kalmuck Republic, beside the Caspian Sea south of the Volga's mouth, is a waterless stretch of sandy steppe, where nomadic Buddhist shepherds of Mongol origin drive their flocks over the dunes in search of grass. Nearly a quarter-million slant-eyed Kalmucks live there, moving their felt tents from well to well. Daghestan, adjoining the Kalmuck Republic on the south, shelters some 930,000 mountaineers, many of them still medieval in dress and custom when the Soviet Union undertook their development.

North Ossetia Contributes Lead and Zinc

Checheno-Ingushia, larger than Connecticut, is a mountain republic of Moslems adjoining Daghestan on the west. There, former shepherds have been working in the oil fields of Grozny, capital of their republic.

North Ossetia, the next to the west, barely 2,250 square miles in area, is a little nation of mountain miners who produce a quarter of the U.S.S.R.'s lead and a third of its zinc. West of that lies Kabardino-Balkaria, twice as large, with a third of a million people (illustration, next page). The three autonomous provinces of the North Caucasus, which give self-government to about a half-million tribesmen chiefly of the Circassian clan, are Adighe, Karachaev, and Cherkess, on the northwestern slopes of the mountains and in the Kuban valley.

In the complicated patchwork of nationalities on the mountains' south slopes, the largest of the three Union Republics is Azerbaijan, about the size of Austria, on the Caspian side of the isthmus. Its capital is the oil-rich city of

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R. S. Strout and *E. B. Strout*

CACTUS TREES, BROWN LEAFLESS SHRUBS, AND BARREN LAVA MAKE A TROPICAL DESERT LANDSCAPE ON GALAPAGOS LOWLANDS

Though mountain tops of the islands rip enough rain from the clouds for lush tropical vegetation, the dry marginal lowlands remain barren and parched throughout most of the year. Lava spilled from the numerous volcanic craters crumbles into dry black sand that grows hotter than light sand under the equatorial sun. High mounds of lava weather into weird sharp pinnacles, and in some places the volcanic streams have hardened into folds and ridges like cake icing. The stunted shrubs bear only the smallest leaves, and their occasional flowers are too small to see from a distance. This is San Salvador (James) Island (Bulletin No. 4).

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Madagascar Landscape a Freak Show of Nature

MADAGASCAR, referred to in lurid tall tales as the land of the man-eating tree, is in truth the land of the tree-drinking man. The island contains no meat-eating vegetation larger than the pitcher plant. This shrub, four feet high, bears jug-shaped, water-filled pitchers in which it traps and digests unwary insects.

British troops have taken over this exotic French colony, the world's fourth largest island, to protect Mozambique Channel between the island and the southeast coast of Africa. The channel is a short cut for ships carrying war supplies for United Nations use in the Near and Middle East. Last May the British took Diego Suarez, the naval base on the northern tip.

What the invading Britons will enjoy is the Traveler's Tree, a life-saver for the thirsty. It is a palm, growing as high as 100 feet, whose big fronds condense moisture and collect it in a natural reservoir close to the trunk. A tap with a spear or a bayonet, and out gushes a pint of pure, sweet water.

Fire, Water, and Shelter from the Trees

This palm also might be called the builder's tree. Its leaves thatch the native's house. Its pounded bark covers his floor. Its trunk provides timber. The leaves serve as dinner plates, or, twisted into scoops, form spoons.

Eighty per cent of Madagascar's vegetation is peculiarly its own. Its forests provide sandalwood, ebony, and mahogany. Among their wonders is the rain tree, from which water may shower down. The water is not from the tree; a million sap-sucking insects infesting its leaves exude thin spray. The candle-nut tree, a species of castor-oil plant, supplies seeds which, strung on a reed and lit, burn steadily with twice the power of a small candle.

The Lemur, the Aye-Aye, and the Biggest Known Egg

A grotesque tree is the baobab—70 feet in height with a tiny expanse of leaves (illustration, next page).

Nature provides fruits in profusion—bananas, mangoes, pineapples, loquats. Easily cultivated are rice, manioc (tapioca), tea, coffee, and vanilla. Frequently the natives garnish their rice dishes with locusts, tadpoles, spiders, beetles, caterpillars, or moths. Nature also supplies poison. The agy tree showers almost invisible poison darts—more painful than nettles.

Madagascar has been called a museum of ancient forms of animal life. They have survived because there has been no competition with stronger creatures. Apparently once a part of Africa, the island was severed from the continent before larger mammals developed. It has no lions, apes, elephants, or monkeys. But monkeylike are the lemurs, of which Madagascar has most of the known species. Some make gentle amusing pets. A few are as large as a fox, some as small as a mouse. One relative of the lemur family has legs joined by a winglike membrane enabling it to glide from tree to tree. Another relative is the weird, catlike aye-aye. With powerful teeth, it bores into trees like a woodpecker for insect grubs. One finger, long and skinny, is equipped with a hook which drags grubs out of the cavity. Its large eyes enable the aye-aye to work at night. The ears protrude to catch the faintest larva sound.

Madagascar is a home of the chameleon, lightning color-change artist, and of

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Baku. Rugged Armenia to the southwest, with its high mountain lakes and roving flocks, is smaller than Switzerland. Subtropical Georgia beside the Black Sea, source of manganese for the U. S. steel industry before war cut off supplies, is no larger than Costa Rica, yet has a history reaching back to Biblical days.

Within Georgia lies the smallest autonomous republic, Adzharia, its 1,100 square miles bordering Turkey. It is governed from the port of Batumi. Georgia contains also Abkhazia, the little republic centered at Sukhumi and known for its string of popular health resorts along the Black Sea coast. High in the deep valleys of the Caucasus, just inside Georgia's north frontier, lies the autonomous province of South Ossetia, a first cousin to North Ossetia.

Azerbaijan contains the small Nakhichevan Republic and the autonomous province of Nagorno-Karabakh, both larger than Rhode Island but counting fewer than 200,000 inhabitants each.

The Soviet Union's principle of self-government for minorities has necessitated these subdivisions, to allow for variations of speech, religion, and race. Each unit has representatives in the U.S.S.R.'s Council of Nationalities, which, like the United States Senate, has a fixed number from each political unit. But delegates are apportioned according to population in the Union Council (as in the U. S. House of Representatives), where Russians predominate, because Russia is the largest republic. In the Council of Nationalities are Georgians, Armenians, Kalmucks, Adzhars, and others, as well as Russians.

Note: For further information on the Caucasus, see "Roaming Russia's Caucasus," in the July, 1942, issue of the *National Geographic Magazine*, and the following GEOGRAPHIC SCHOOL BULLETINS: "Russian Oil, Magnet of the Caucasus," October 5, 1942; and "Russia's Rich Oil Reserves Found from Volga to Pacific," December 8, 1941.

Bulletin No. 1, October 12, 1942.

Sovfoto

VLADIMIR CAN DISCUSS THE PICTURES IN TWO LANGUAGES WITH TWO TEACHERS

The Kabardino-Balkarian Republic unites the mountain valleys of Balkaria, in the shadow of Europe's highest peak—glacier-draped Elborus—with the irrigated plains of Kabardia around the capital, Nalchik. The people have hitherto been isolated and backward because, speaking a Turkish dialect, they could neither understand their neighbors nor be understood. The Soviet Union established the region's first schools, where, seated at old-fashioned double desks, pupils now learn Russian as well as the native dialect. To teach equivalent words in the two languages, pictures are emphasized, such as the brightly colored biology charts. The motherly school mistress has a smocked and booted young assistant to help with such duties as keeping records.

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Ship Shortage May Diet Your "Chocolate Tooth"

NOW that sugar rationing has denied some favorite sweets to America's "sweet tooth," the "chocolate tooth" also may be asked to take a cut in chocolate bars, chocolate-flavored drinks, chocolate cake, chocolate syrup, chocolate ice-cream, and hot chocolate and cocoa.

The chocolate shortage is foreshadowed by a scarcity of ships in which to carry cacao beans (from which both chocolate and cocoa come) from their tropical homes to their greatest consumer—the United States.

As for possible substitutes—science has not yet devised anything to duplicate the distinctive flavoring of chocolate.

Cacao Bean Is Gold Mine for Gold Coast

All the cacao beans grown throughout the world add up to over 700,000 tons a year. The U. S. buys about 290,000 tons. Over 70 per cent of this is used by the confectionery industries. The rest goes into the making of cocoa butter, medical products, and breakfast cocoa. The shortage, so far, is felt only by these industries, which are now operating on 60 per cent of their normal supplies. The consumer notices the scarcity only indirectly.

Actually, in their countries of origin, cacao beans are plentiful enough. The Gold Coast of Africa, largest world producer, still grows its yearly 250 to 275 thousand tons. This small patch of British colony on Africa's Gulf of Guinea coast, no larger than Kansas, now receives almost as much revenue from its exports of cacao as from the gold for which it was named. Brazil, the runner-up, still produces from 120 to 130 thousand tons a year. Cacao trees still flourish in the other tropical chocolate-producing countries—mainly Nigeria, the Ivory Coast, and the Cameroons in Africa, and Trinidad, Ecuador, the Dominican Republic, Venezuela, Haiti, and Grenada in the American tropics.

But cargo space in the ships which once brought more than 40 per cent of the world's supply to U. S. ports is now mostly taken up by vital materials of war. Steel, which might otherwise go into building new cacao-carrying ships, must make tanks, shells, and warships instead.

Was Named "Food of the Gods"

Uncle Sam might look to his own sun-warmed southern states for help, but the climate is none too favorable, and the tropically-inclined cacao tree is temperamental and easily discouraged. Those planted experimentally in Florida in the 1920's still grow, but have never produced commercially. The cacao tree requires a temperature that seldom sinks below 60 degrees. Its tender leaves must be protected not only from cold, but from heat and wind as well. Taller trees must be planted around the cacao tree for this protection. Soil must be rich, well drained, but damp. Five to seven years elapse between the planting of a seed and the time a tree produces its strange cantaloupe-sized pods (illustration, next page). The annual yield averages about 2 pounds of cacao beans per tree.

The name and the drink—chocolate—the world owes to Mexico. Hernando Cortés found the cacao tree in full cultivation and "chocolatl," made from the cacao bean, the favorite drink when he invaded Mexico early in the 16th century. Some students estimate that the cacao tree had been known for a thousand years before Cortés. Mexican mythology says that "chocolatl" was a favorite food of

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the four-foot fruit bat. There are birds with gorgeous plumage and a stork that builds a nest half as large as a load of hay. The fossil remains of a 10-foot-tall flightless bird, the supposed roc of the *Arabian Nights*, were discovered in the 1830's. Its fossil egg—largest known bird egg, 12¼ inches long—has 148 times the volume of the domestic hen's.

The 30 or more Madagascar tribes speak a common tongue—Malagasy—with variations. They have numerous religions, with no organized priesthood, no temples. They smashed their idols long ago. In general, they worship their ancestors, tribal demons, and a supreme being. Christianity has made wide gains. Rulers of the island before the French conquest of 1896 were the Hovas, a yellow-skinned people whose ancestors have been traced to Malaya and Polynesia (in the Pacific). Women ruled from 1828 until 1896. The darker Sakalavas, dominant before the Hovas, are believed to be Melanesians, also from the South Seas.

Customary garb is a loin cloth and, thrown over the shoulder like a Roman toga, the *lamba*, a white coverall (illustration, cover). Lamba wearers, in ghostly white, remind travelers of a Halloween procession.

Five million humpbacked cattle can supply the 4,000,000 people with beef. Some individuals own herds of 10,000. Cattle theft is considered clean sport.

Note: Madagascar is shown on the National Geographic Society's Map of the Indian Ocean. See also these articles in the *National Geographic Magazine:* "Madagascar: Mystery Island," June, 1942; and "Across Madagascar by Boat, Auto, Railroad, and Filanzana," August, 1929*; and these GEOGRAPHIC SCHOOL BULLETINS: "Madagascar, France's Queen Island of the Indian Ocean," May 11, 1942; and "War Echoes in Madagascar," December 11, 1939. *(Issues marked by an asterisk are included in the special list of National Geographic Magazines available at 10¢ each in groups of 10.)*

Bulletin No. 2, October 12, 1942.

Charles F. Swingle and *Henri Humbert*

THE MONKEY-BREAD TREE CAN HOUSE, CLOTHE, AND CURE THE MALAGASY

Standing sentinel over the cluster of native huts, this nearly dead baobab tree (also called the monkey-bread) serves the villagers as a storehouse rather than the lighthouse it resembles. The Malagasy (as the natives are called) find it easy to carve out a storeroom or a home in its spongy wood. The baobab's trunk is wide out of all proportion to its height, sometimes 30 feet in diameter at the ripe age of 5,000 or so, but rarely exceeding 70 feet in height. The deep green leaves are pulverized by the natives for medicine. The white flowers with long purple stamens look like huge poppies. The large oblong fruit tastes somewhat like gingerbread. Rope and cloth are made from the tough fiber of the tree.

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Galapagos Islands To Help U. S. Defend Panama Canal

FLANKED by a protecting arc of "lend-lease" bases on the Atlantic side, the Panama Canal has hitherto lacked island outposts on the Pacific side. In latitudes of Panama, the Pacific has far fewer islands to offer than the Atlantic. Now Ecuador has allowed the U. S. to establish two bases on Ecuadorian territory one on the tip of the Santa Elena Peninsula jutting out from South America's northwest coast and the other on the Galapagos Islands, 950 air miles from the Canal.

For centuries a magnet for scientists, a hideaway for pirates, and a provisioning point for Pacific fishermen, the volcanic Galapagos group now becomes the first U. S. base off western South America. American soldiers whose brothers boast of meeting kangaroos in Australia will make the acquaintance of the sea-going lizard and the giant Galapagos turtle (illustration, next page), which influenced modern scientific thought when observed by Charles Darwin.

Six Volcanoes Built Isabela Island

Ecuador's Equator-crossed island cluster, some 500 miles due west of the mainland, consists of five large islands, ten smaller ones, and a sprinkling of islets and wave-washed rocks. Their total area is estimated at 2,868 square miles, a little larger than Delaware. Many are uninhabited. The population is perhaps 1,500, mostly Ecuadorian political exiles and Scandinavian fishermen.

As to names, most of the islands lead a double life. The Spaniards, who found them in 1536 and confirmed an Inca tradition of their position, gave them Spanish names, but the pirates who lurked there later renamed some of them for British kings. San Salvador, for example, is James, too (illustration, inside cover).

Largest of the islands is Isabela (or Albemarle), shaped like a sock, with its round companion, Fernandino Island, near the toe. Six large volcanoes built the islands ages ago, pouring out lava until joined together by their own overflow. Some of them were still active in 1937. Isabela supports 400 people. Fishermen visit the island for tuna, which can be seen by the hundred.

Darwin Pondered the Origin of Galapagos Species

On Santa Cruz, or Indefatigable Island, the second largest of the group, is a government-maintained water tank, for passing ships and parched natives.

The third largest and easternmost of the group, San Cristóbal or Chatham Island, is barely 24 miles long and 8 miles across, but the most important member of the island family because of its fresh water. Progreso, its only town, is headquarters of Ecuador's military government of the group. The island's uplands yield two generous crops yearly of vegetables and sugar cane. Coffee and fruit trees thrive. There is a mill to process the cane.

Little Santa Maria Island (or Charles), only 26 miles in circumference, is sought out by sailors because of Post Office Bay on the northern coast. There a barrel on a pole is the only "post office" between South America and the Marquesas Islands 3,300 miles west. Passing ships pick up letters headed in the direction of their voyages and leave mail destined for other directions.

Two thousand volcano crater cones dot the islands. Vegetation on their lower slopes is scanty, depending entirely on the short rainy season for water. Above the 800-foot level, however, a heavy mist provides abundant moisture,

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the gods, "blown" into Mexico from Eden by "Quetzalcoatl"—God of the Air. Linnaeus, the Swedish botanist, named it *Theobroma Cacao*, meaning "Food of the Gods."

Kin to Caffeine

Aztecs and Mayans used cacao beans in place of money. The wealth of a man was often judged by the number of cacao beans he possessed, and as late as 1693 a certain Frenchman reputed to have 10 pounds was considered remarkably wealthy.

In Mexico slaves were reported to have been exchanged for these valuable beans—100 beans, one good slave.

Almost 100 years after Cortés had enthusiastically introduced the cacao bean into Spain, an Italian discovered the process of making chocolate that had been kept secret by the Spaniards. Throughout Europe chocolate houses followed fast on the heels of coffee houses in popularity. But unlike the coffee houses, they were never considered danger spots of political intrigue. The stimulating agent in chocolate and cocoa is much the same as that in coffee and tea, although they are named theobromine, caffeine, and theine, respectively. Despite this, chocolate and cocoa have been considered refreshment and food instead of an intoxicant, as was coffee in early days.

Bulletin No. 3, October 12, 1942.

E. John Long

A CACAO POD HOLDS A CHOCOLATE BEAN FEAST

Sometimes a pod grows as big as a cantaloupe, springing from the trunk or branches of the tree. Tropical workers free the beans from the pod, dry them, and allow them to ferment before shipping. In the U. S. they are roasted, like coffee beans, and cracked open so that the shell can be thrown away before blending and grinding begin. On this tree, at the U. S. Department of Agriculture Experiment Station in Puerto Rico, a vanilla vine has been trained to zigzag up beside the cacao pods, to combine both chocolate and vanilla flavors on the "soda fountain" tree.

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"Father Rhine," Bomber's Guide to Germany's War Industries

THE German Rhine, a wide streak of silver that cannot be camouflaged, can be a bombing plane's guide to destruction of the factories making war supplies along its banks. This geographic fact has special significance for Americans since the chief of the U. S. Army bomber command in Britain threatened, "There is hardly a corner of Germany that U. S. bombers will not reach."

Now the river whose cathedrals, castles, Roman ruins, vineyards, and legends once attracted a million tourists a year, faces an influx of American aerial visitors interested in its chemical, power, and metallurgical works.

Threaded along the Rhine and its larger tributaries (map, next page) are the cities of Essen (660,000 people), Duisburg-Hamborn (430,000), Dusseldorf (540,000), Cologne (768,000), Mainz (156,000), Frankfurt (547,000), Mannheim (284,000), Ludwigshafen (143,000), Karlsruhe (190,000), and Strasbourg (193,000, on the French bank of the river). These include six of the twenty-five largest cities in Germany.

Traffic Targets Thick for Bombardiers

The Rhine Valley, rich in coal and iron, is the forge that built Germany's blitzkrieg. It contains the smoking chimneys and almost inexhaustible coal mines of its tributary, the Ruhr. Germans call the Rhine the "Great Factory Street."

Bomb-vulnerable canals connect the Rhine with the waterways of Germany, France, Belgium, the Netherlands, and the Balkans. At Strasbourg may be seen Rhone barges from Marseilles, Marne craft from Paris, and Rhine boats from Rotterdam. Railroads parallel the river on both sides. A bombing of Rhine traffic junctions can scramble schedules for days, and clog trains for hundreds of miles. The Ruhr's freight yards, mills, docks, and vital bridges present target after target.

So dense is the population that the surrounding countryside, in many areas infertile, is unable to feed the cities. In normal times, ocean-going vessels, dwarfing the iron-ore and coal barges which carry the river's principal cargoes, haul food inland from distant granaries.

The Rhine contains three major traffic sections. Cologne (Köln), recently struck by 1,000 R.A.F. bombers, is head of transportation from the sea. Heavy barges can go as far as Mannheim. Only lighter barges go all the way upstream to Basel in Switzerland, head of navigation.

From Alps to Sea—850 Miles

The 850-mile-long Rhine rises in the glaciers of the Swiss Alps. It skirts former Austria, tiny Liechtenstein, feeds Lake Constance, and falls 60 feet at Schaffhausen, Europe's Niagara. Below Basel, it bids farewell to Switzerland and, entering its narrow rift valley, serves as an international frontier between the French Vosges and the German Black Forest. From near Karlsruhe to the Netherlands border, both banks are German. From Bingen to Bonn, the river passes through its 80-mile gorge. There its hilly slopes are lined with terraced vineyards and its heights crowned with castles, many in ruins, where feudal robber barons collected toll. Approaching Cologne, the river widens and its banks flatten out. At Duisburg-Hamborn, entrance to the Ruhr Valley, the sluggish Rhine creeps past the world's busiest inland harbor—22 million tons of shipping a year.

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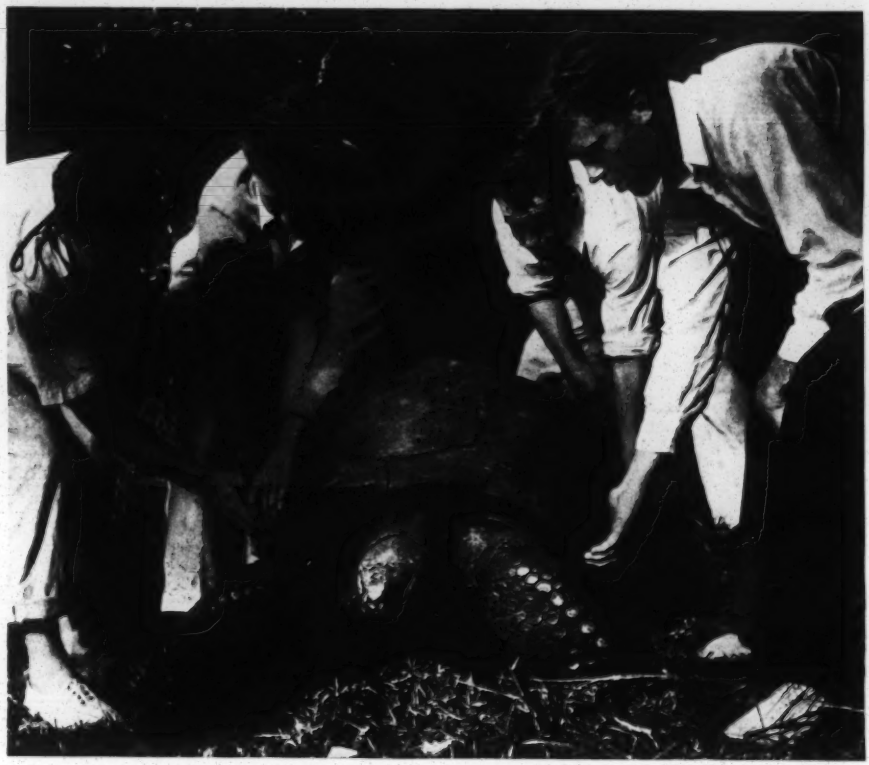
especially on the windward side. There forests attain a junglelike lushness. The cold Humboldt current from the Antarctic noticeably reduces the heat.

In 1839 the British scientist Charles Darwin described the Galapagos in *The Voyage of H.M.S. Beagle*. He discovered that half the islands' birds and half the plants were different from other species. He found a buzzard, owl, wren, dove, and swallow, for example, that were smaller than their relatives on the American continents. He was amazed to find that the giant turtles on one island differed from those living on adjoining islands. In *The Origin of Species*, he explained his theory of the influence of environment, and of the origin of animal and plant species by natural selection, or the survival of those specimens best fitted to live in the environment, while unfit specimens die off.

Note: The Galapagos Islands are shown in detail on a large inset on the National Geographic Society's new Map of South America, issued as a supplement to the October, 1942, number of the *National Geographic Magazine*.

See also the following articles in the *National Geographic Magazine:* "Westward Bound in the *Yankee*," January, 1942; and "At Home on the Oceans," July, 1939*.

Bulletin No. 4, October 12, 1942.

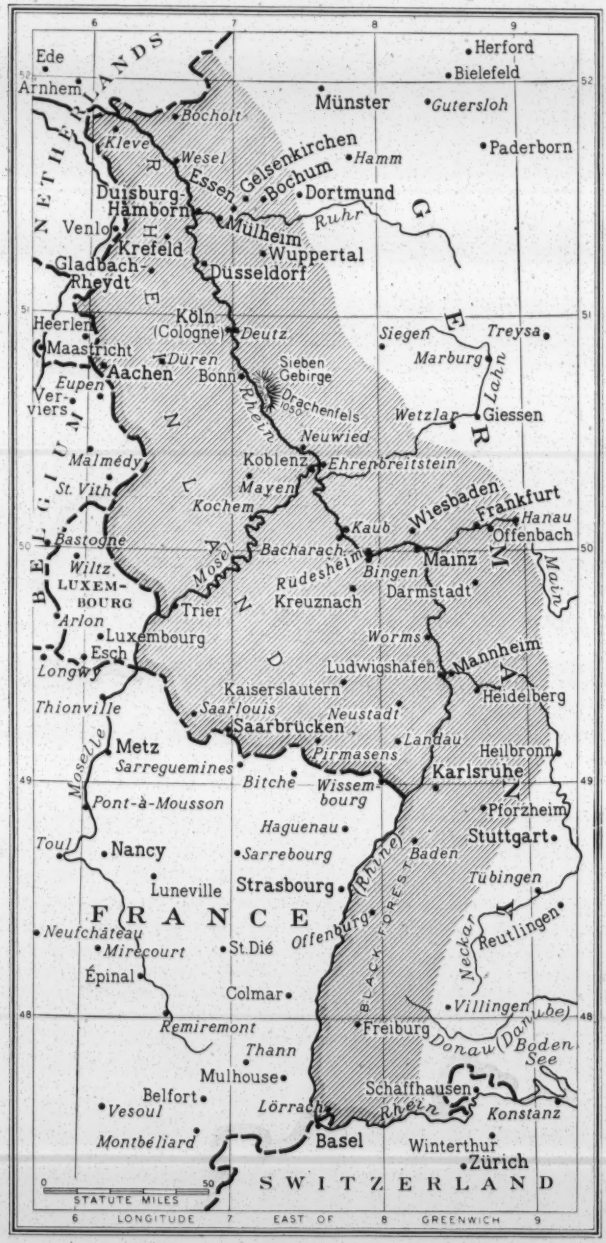


Dr. Raymond A. Dillon

THE HUGE GALAPAGOS IS A ONE-TURTLE BUTCHER SHOP

Spanish explorers in 1536 named these Pacific islands in honor of the leading citizen, the giant turtle, or *galapagos*, the largest form of animal life there. These sluggish creatures, weighing several hundred pounds, could thrive on the semi-desert lowlands because they could forego food and water for months. On islands with mountain springs, the turtles climb to mountain heights for a drink, progressing about 4 miles a day. Explorers have followed turtle paths to the high water holes. On islands without fresh water, turtles live on cactus and dew. The turtle's round eggs will bounce like tennis balls without breaking. Sailors and other visitors, like the lads photographed, catch the turtles, which live for months aboard ship and provide fresh steaks long after other meat would have spoiled without refrigeration.

Meandering into the Netherlands, the river splits into its delta, where silt, brought down from the Alps, has raised the Lowlands from the ocean floor. Amid the numerous channels that carry its waters to the North Sea, the Rhine all but loses its name.



Arthur J. Hazes

"FATHER RHINE" CARRIES FOUR NATIONS' TRAFFIC

From Basel in Switzerland to its delta in the Netherlands, the river is normally Europe's greatest inland waterway, carrying 60 million tons of cargo yearly in 10,000 boats and barges.

Bulletin No. 5, October 12, 1942.

Port Now Held

Now under the control of Nazi armies of occupation is the Rhine's principal seaport, Rotterdam. "Father Rhine," inspiration of German poets and theme of patriotic songs, until now has been alien at both its extremities.

Keeping watch on the Rhine have been German national heroes, from Siegfried who slew the dragon, to Hitler who killed the Versailles Treaty and remilitarized the Rhineland. Caesar established the outpost of Roman civilization along the Rhine. The river has known Attila the Hun, Charlemagne, Napoleon, and later Foch and Pershing.

Note: For further information on Germany see the following GEOGRAPHIC SCHOOL BULLETINS: "Germany's Industrial Ruhr," February 10, 1941; and "War Targets in Germany," January 6, 1941.

Germany is shown on the Society's Map of Europe and the Near East.

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